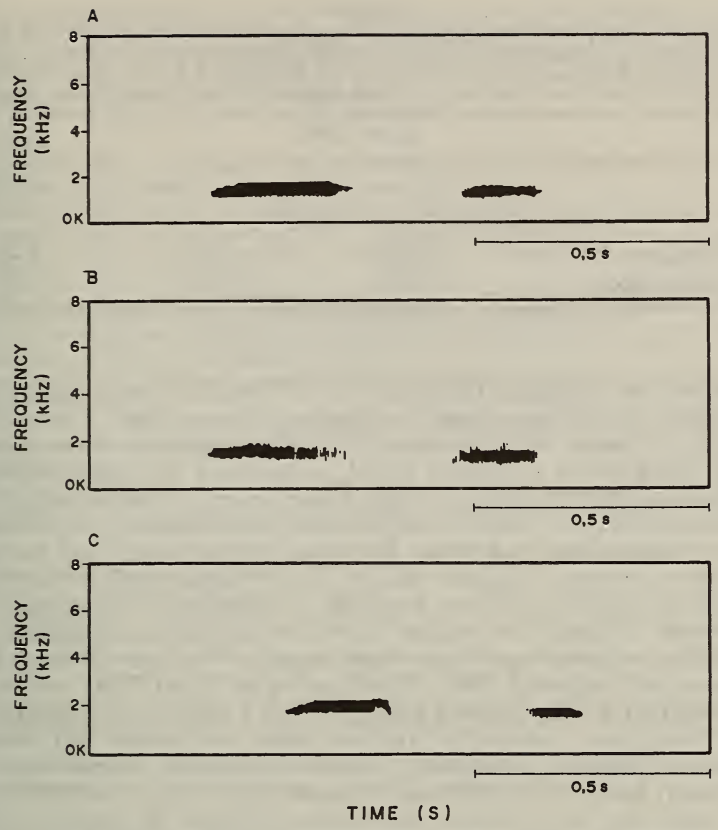

Figure 1. Sonagrams of the song of three populations of the Large-headed Flatbill *Ramphotrigon megacephala* in Brazil. A, Ji-Paraná, Rondônia State, Amazonia (JV 495/5b); B, Barra do Garças, Mato Grosso State, central Brazil (ALPA 21/10); C, Parque Estadual Intervales, São Paulo State, southeastern Brazil (ALPA 26/1+2). All recordings are deposited in the Libary of Neotropical Sounds (ASN) at the Bioacoustical Laboratory of the Universidade Estadual de Campinas-UNICAMP. Sonagrams were made on a MacIntosh Classic coupled to a MacRecorder Sound System 2.0.5.

Brazil; JV 495/5b-ASN) and Parque Estadual Intervales, Capão Bonito (southern São Paulo State, Brazil; ALPA 26/1+2-ASN). The song structure of the São Marcos bird (the disyllabic *whu-hoo*) is very similar to that of the birds from Amazonia (Rondônia) and southeastern Brazil (Fig. 1). Though a larger sample size is needed, preliminary measures of the duration of the notes of the song of the São Marcos bird indicate its closer relationship to Amazonian birds (Table 1).

The range extension here reported fills a gap in the spotty distribution pattern of *R. megacephala*, which until 1939 was known only from a few specimens from southeastern Brazil and adjacent

TABLE 1

Duration of the notes and interval between the two notes (in seconds) of the song of three populations of the Large-headed Flatbill *Ramphotrigon megacephala* in Brazil: Amazonia (JV 495/5b, Ji-Paraná, Rondônia State), Central Brazil (ALPA 21/10, Barra do Garças, Mato Grosso State) and Southeastern Brazil (ALPA 26/1+2, Capão Bonito, São Paulo State). Sounds were analysed on a MacIntosh Classic coupled to a MacRecorder Sound System 2.0.5.

	First note	Second note	Interval
Amazonia	0.309	0.166	0.23
Central Brazil	0.283	0.165	0.26
Southeastern Brazil	0.211	0.133	0.28

Argentina and Paraguay (Zimmer 1939). Further research has revealed a broader though very local distribution (Novaes 1960, Parker 1984, Ridgely & Tudor 1994, Pacheco 1995). The population here reported of *R. megacephala* in central Brazil, a region of dry open vegetation which separates two large humid forest tracts (Atlantic forests and Amazonia) and two distinct populations of the Large-headed Flatbill (*R. m. megacephala* and *R. m. boliviana*, respectively), may be interpreted as relictual. The new locality for *R. megacephala* lies approximately at equal distance between southwestern Amazonia and southeastern Brazil, two regions known to harbour a very distinct and specialist avifauna associated with bamboo thickets (Parker 1982, Pierpont & Fitzpatrick 1983, Rodrigues *et al.* 1994). This new record suggests that *R. megacephala* may have had a wider distribution in the past, being now confined to regions where its habitat still remains. Relictual bamboo understory forests in central Brazil have not previously been reported in the literature (Sick 1955, Goodland 1971), and may be very locally distributed. Prance & Brown (1987) hypothesized that during the Pleistocene the transitional forest (which includes the bamboo forest type) was more extensive but was replaced more recently by rain forest in Amazonian lowlands and by *cerrado* on the central Brazilian Plateau. After the reduction of the transitional forest due mainly to climatic changes, species peculiar to it would have a relatively restricted and fragmented distribution (Prance & Brown 1987), a hypothesis for which this record of the Large-headed Flatbill provides support. Further ornithological investigation in these relictual riparian forests with a dense understory of bamboo will probably lead to other range extensions of forest birds closely associated with bamboos and previously unknown on the central Brazilian shield.

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Distributional notes on birds of Andean dry forests in Bolivia

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From 20 May to 19 October 1995, an ornithological and botanical expedition conducted by the Foundation for Tropical Research and Exploration (TREX), in collaboration with the Herbario Nacional de Bolivia (HNB) and the Colección Boliviana de Fauna (CBF), visited 12 Andean dry forest localities (i.e. forest mainly composed of drought-deciduous trees) throughout Bolivia. The avifauna of one of these sites (Inquisivi, site 6) had previously been surveyed in 1993, 1994 and 1995 by SM, who did not participate in the TREX

expedition, and his data are included in this paper. We present details on noteworthy ornithological results, including some notes on a species new to science (*Cranioleuca*, unnamed species), the first observations of Lemon-browed Flycatcher *Conopias cinchoneti* in Bolivia, 29 new departmental records, 12 new altitudinal records and notes on two threatened bird species. Remsen & Traylor (1989) and *A birdlist of Bolivia* (Armonía 1995) compiled and published by Asociación Armonía, the Bolivian representative of BirdLife International, were used as references for all new departmental records listed below. New altitudinal records are mainly based on Fjeldså & Krabbe (1990), Ridgely & Tudor (1989, 1994) and Armonía (1995). For all survey sites except Río Pilcomayo (site 12), which was visited for only 2 days, lists of all species observed are presented (see Appendix). Tape-recordings of individual birds and dawn choruses were made at sites 2–6, 8 and 11 and will be housed in the Library of Natural Sounds, Laboratory of Ornithology, Cornell University.

Throughout Bolivia, dry forests at medium to high altitude (1500–3500 m) have been severely degraded or locally completely destroyed, mainly due to overgrazing, the excessive use of fire and the extraction of timber (especially for the production of charcoal). Thus, in many areas (e.g. Torotoro, upper Consata Valley, upper tributaries of Río Grande and Río Pilcomayo) most dry forest is characterized by a low, open canopy and shows little to no tree regeneration. The final stages of degradation are *Dodonaea*-covered slopes or barren badlands. Consequently, conservation measures are urgently needed, especially since these forests hold a number of bird species that have small ranges (J. V. Remsen *in litt.*).

In contrast, foothill dry forest dominated by *Anadenanthera* is still widespread, and, while little of this habitat can be regarded as pristine (in fact, pre-Incan terraces are commonly found), the ecosystem as such seems to be comparatively healthy. Fortunately, the most important area of foothill dry forest was recently included in Parque Nacional Alto Madidi, but other significant areas currently lacking any protective status are found along the lower Río Grande in the Masicurí region and southward along the Cordillera de los Milagros, including our study area at Río Azero.

Survey sites:

(1) **Consata**, depto. La Paz, provs. Saavedra and Muñecas, from *c.* 3 km (15°24′S, 68°31′W) to 18 km (15°26′S, 68°34′W) SW Consata along the road to Sorata; 30 May–3 June; 6–15 m tall, 30–85% deciduous dry forest dominated by *Anadenanthera colubrina* (1000–1400 m); further downriver the forest graded into disturbed evergreen forest, further upriver into dry scrub.

(2) **Yolosillas**, depto. La Paz, prov. Nor Yungas, *c.* 4 km N Yolosa on the road to Caranavi (16°12′S, 67°45′W); 20–23 May, 8 Oct; small (1–5 ha), isolated patches of degraded (logging) dry forest (8–12 m tall, *c.* 50% deciduous, dominated by *Anadenanthera colubrina*) on steep slopes near the Río Coroico (1000 m) and on N-facing slopes (1100–1300 m); slopes facing W, E and S and most areas adjacent to the river supported degraded (logging, burning) evergreen forest.

(3) **Las Mercedes**, depto. La Paz, prov. Sud Yungas, from 6 km (16°17′S, 67°23′W, 1300 m) to 27 km (16°13′S, 67°13′W, 800 m) E Villa Barrientos along road to La Asunta; 2–7 Oct; slightly degraded forest (10–15 m tall, *c.* 80% deciduous, dominated by *Anadenanthera* sp., *Cereus* sp., several Leguminosae) from Río Boopi (800–850 m) and Río Tamampaya (850–1000 m) up to *c.* 1200 m, above which dry forest was originally replaced by more humid forest but now mostly cleared for agriculture; *c.* 32 km E Villa Barrientos dry forest started to grade into humid foothill forest.

(4) **Miguillas**, depto. La Paz, prov. Inquisivi, 4.5 km NNW Miguillas (16°33′S, 67°22′W); 21–25 Sept; moderately to, in part, severely degraded (logging, burning, grazing) dry forest (8–10 m tall, *c.* 70% deciduous, with *Anadenanthera* sp., *Acacia macracantha*, *Cereus* sp.) from Río La Paz (1100 m) up to 1600–1700 m, above which the forest was largely replaced by pastures; slightly more humid forest (10–12 m tall, *c.* 50% deciduous) in a shallow, *c.* 50 m wide, S-facing ravine.

(5) **Huara**, depto. La Paz, prov. Sud Yungas, from the confluence of Ríos La Paz and Jucumarini (16°37′S, 67°28′W, 1250 m) to *c.* 3 km ENE Rancho Cieneguillas (16°34′S, 67°25′W, 1500 m); 27 Sept–2 Oct; moderately degraded dry forest (6–12 m tall, on steep, eroded slopes replaced by open scrub, 80–90% deciduous, dominated by several Leguminosae, *Schinopsis* sp., with *Tillandsia duratii* abundant) from Río La Paz (1200–1250 m) up to 1800–1900 m, above which the forest had largely been cleared; evergreen forest along the Río Jucumarini (*c.* 12 m tall, 5–15 m on each side of the river, dominated by *Cecropia* sp., *Solanum* sp., *Anadenanthera* sp., *Inga* sp., *Tessaria integrifolia*, *Piper* sp.) interspersed with gravel bars and open scrub vegetation.

(6) **Inquisivi**, depto. La Paz, prov. Inquisivi, slope N Inquisivi (16°54′S, 67°09′W) from 2500 m down to Río Khatu at 2050 m (*c.* 2.5 km N Inquisivi); 14–21 Sept, 17–18 Oct (TREX expedition); 13–16 and 23–28 Dec 1993, 27 Jan–2 Feb 1994, 3–6 Jan 1995 (SM); moderately degraded (grazing, logging) dry forest (8–10 m tall, *c.* 95% deciduous, with *Schinus molle*, *Schinopsis haenkeana*, *Ceiba* sp.), largely replaced by agricultural fields and plantations of *Eucalyptus globulus* above 2500 m; a 50–80 m wide band of *c.* 20% deciduous forest along a ravine from *c.* 2500 m down to Río Khatu; a small, severely degraded (logging, grazing) patch of evergreen forest and scrub at Río Khatu (10 m wide stretch of *c.* 12 m tall forest along the river dominated by *Erythrina* sp., adjacent scrub up to 5 m tall and dominated by *Piper* sp., *Acacia macracantha* and several Compositae).

(7) **Río Caine**, depto. Potosí, prov. Charcas, and depto. Cochabamba, prov. Arce (18°06′S, 65°46′W to 17°53′S, 65°55′W); 11–14 June; extensive areas of severely degraded (logging, grazing, burning) dry forest (*c.* 10 m tall, 85% deciduous, originally dominated by *Schinopsis haenkeana* and *Aspidosperma quebracho-blanco*, now mostly by *Prosopis kuntzei* and *Acacia* spp.) on slopes at 2100–2400 m; extensive agricultural areas in the flat river valley (2050–2100 m) with very few trees (mostly *P. kuntzei*, *A. quebracho-blanco*,

Capparis sp.) as well as *Opuntia sulphurea* and *Puya* sp. in overgrazed areas.

(8) **San Juan del Potrero**, depto. Santa Cruz, prov. Florida, 5.5 km SE San Juan del Potrero (17°59′S, 64°15′W); 3–8 Sept; moderately degraded (grazing) dry forest (5–8 m tall, *c.* 80% deciduous, dominated by *Aspidosperma quebracho-blanco*, several Leguminosae and *Cereus* spp.) covering most of the area from seasonally dry creeks (where the forest was slightly taller and less deciduous) at 1500 m up to hill tops at 1950 m.

(9) **Novillero**, depto. Cochabamba, prov. Campero, from *c.* 3 km (18°18′S, 65°15′W, 2400 m) to 22 km (18°13′S, 65°18′W, 2800 m) NW Novillero along the road to Santiago; 16–20 June; degraded (logging, grazing) dry forest (*c.* 8 m tall, 80% deciduous, dominated by *Tipuana tipu*) grading into more humid forest (to 18 m tall, 25% deciduous, including many Myrtaceae) on S-facing slopes at higher elevations; large areas cleared and dominated by scrub of *Baccharis* spp., *Minthostachys* sp., *Tecoma* sp., etc.; valley bottoms mostly converted to agriculture, only scattered patches of degraded evergreen forest (10–15 m tall, *c.* 15% deciduous) in ravines.

(10) **Masicurí**, depto. Santa Cruz, prov. Vallegrande, from the confluence of Río Masicurí and Río Grande (19°04′S, 63°41′W, 500 m) to the vicinity of Masicurí (18°49′S, 63°48′W, 800 m); 9–14 July; slightly to severely degraded (logging, grazing) dry forest (8–15 m tall, 60–85% deciduous, dominated by several Leguminosae incl. *Anadenanthera colubrina*), gradually becoming more humid with increasing elevation until replaced by slightly to moderately degraded evergreen forest (*c.* 20 m tall, 10–20% deciduous) at about 800 m; most of the 0.5–1.5 km wide valley bottom converted to pastures and plantations with few remaining patches of degraded (logging, grazing) evergreen gallery forest (to 30 m tall, *c.* 30% deciduous, originally less deciduous).

(11) **Río Azero**, depto. Chuquisaca, prov. Siles, from *c.* 15 km NW Río Azero (19°32′S, 64°10′W, 1500 m) along the road to Padilla to 35 km SW Río Azero (19°47′S, 64°02′W, 1200 m) along the road to Monteagudo (altitude at Río Azero 1000 m); 27 June–4 July; large tracts of slightly disturbed (some grazing and logging) dry forest (15–20 m tall, 40–80% deciduous, diverse with numerous Leguminosae); slightly to severely degraded (logging) evergreen forest (to 25 m tall, *c.* 10% deciduous) along the Río Azero and in humid ravines.

(12) **Río Pilcomayo**, depto. Potosí, prov. Linares, and depto. Chuquisaca, prov. Yamparaez, from Oron Kkota (19°34′S, 64°51′W, 2050 m) to 5 km SW Icla (19°23′S, 64°48′W, 2450 m); 22–24 June; arid area with scattered patches of severely degraded dry forest (*c.* 7 m tall, 95% deciduous, dominated by *Schinopsis haenkeana*, *Tipuana tipu* and *Aspidosperma quebracho-blanco*) at higher elevations; desert scrub (with *Neoraimondia herzogiana*) and degraded riverine forest (5–12 m tall, *c.* 50% deciduous, dominated by *Aspidosperma quebracho-blanco*, *Jatropha hieronymi* and various columnar cacti) at lower elevations.

Species accounts

BAND-TAILED PIGEON *Columba fasciata*

This species was observed at 1500 m at Huara by SKH and MK, and at 800 m along the Río Boopi at Las Mercedes by SKH, well below its usual elevational range (Fjeldså & Krabbe 1990, Armonía 1995).

MAROON-CHESTED GROUND-DOVE *Claravis mondetoura*

Up to 5 individuals (3 males, 2 females) of this poorly known species were observed by SKH and SH on 3, 4 and 6 Oct within 2.5 km of road along the Río Boopi and Las Mercedes, 500 m below its known elevational range (Fjeldså & Krabbe 1990, Armonía 1995). Surprisingly, all birds were observed in dry forest. Any humid forest with bamboo thickets, the habitat the species usually is associated with (Hilty & Brown 1986), was located on the slopes at least 400 m above the dry forest.

RED-FRONTED MACAW *Ara rubrogenys*

To increase the knowledge about daily and seasonal movements and population trends of this threatened species (classified as "vulnerable" by Collar *et al.* 1992), we include our observations here. During five days spent along the Río Caine, only one individual was seen (on 11 June by SH), whereas *c.* 40 birds were found in the same area on 1 Aug 1989 (MK pers. obs.), about 60 were estimated to have been present in Oct/Nov 1990 (Boussekey *et al.* 1991) and *c.* 100 were estimated to have been present from Sept 1991 to March 1992 (Pitter & Christiansen 1995). This nearly complete lack of sightings of Red-fronted Macaws during our survey along the Río Caine is puzzling, especially since the species was not considered to be under any immediate threat in this area by Boussekey *et al.* (1991), and Pitter & Christiansen (1995) considered it to be resident.

At Novillero, MK and SH saw 4 individuals flying downriver at dawn on 20 June; none were recorded at this site from 30 April to 2 May 1995 by P. Nygaard-Andersen and N. Moray Williams (pers. comm.). In the Río Pilcomayo drainage, 22 individuals were seen flying to a roost by MK and SH on 22 June about 3 km S of Icla (19°22′S, 64°48′W). On the evening of the following day between 104 and 116 birds were observed flying upriver near Hacienda Uyuni (19°26′S, 64°50′W) by MK and SH, presumably to the same roost as the birds of the previous day, whereas only 45 birds flew downriver at the same site the next morning. During the day, groups of 3 to 6 birds were found in riverine forest along the Río Pilcomayo (19°27–35′S, 64°49–51′W), totalling *c.* 18 birds along a 20 km stretch of the river. On the morning of 7 July about 90 birds were seen flying upriver along Río La Haciendita (19°01′S, 64°12′W) at 1300 m, where none were seen the previous afternoon.

CANARY-WINGED PARAKEET *Brotogeris versicolurus*

Observations of a flock of 4–6 individuals by SM on 27 Dec 1993 and of several pairs by SKH on 16, 18 and 20 Sept 1995 at Inquisivi

represent the first reports of this species for depto. La Paz (Remsen & Traylor 1989, Armonía 1995).

MONTANE FOREST SCREECH-OWL *Otus hoyi*

At Río Azero, this species was captured three times (involving at least 2 different individuals) in dry forest at 1100 m whilst mist-netting bats on the nights of 28 and 29 June. Additionally, MK heard and saw an individual at 1250 m at a site about 1.5 km away from the netting area on 27 June. These records fill an altitudinal and ecological gap between the humid montane forest site above 1300 m from which the species was originally described (König & Straneck 1989) and a recent record from the Bolivian chaco (Kratter *et al.* 1993). At Río Azero *O. hoyi* is sympatric with *O. choliba*.

BUFF-FRONTED OWL *Aegolius harrisii*

The characteristic, wailing trill of this secretive species, for which few records exist from Bolivia (J. V. Remsen *in litt.*), was heard by MK and SH from deciduous forest near our camp at Masicurí on the night of 16 July. To our ears the voice was identical to the recording on Hardy *et al.* (1990). The species was also found to be locally common in structurally similar, but not mountainous habitat between Pozo Colorado and Fn. V. Rivarola, Presidente Hayes, Paraguayan Chaco (*c.* 23°30′S, 60°20′W, 100 m) in Oct 1991 by MK and P. Driesch (cf. Paraguayan distribution of this species in Hayes 1995), suggesting that it may be more widespread in deciduous forests than previously thought, and that the Andean and SE Brazilian populations may be connected by a population in the chaco and adjacent dry forest habitats.

BAND-WINGED NIGHTJAR *Caprimulgus longirostris*

A pair seen by MK and SH at 800 m on a tributary of the Río Masicurí on the night of 9 July represents a considerable downward range extension on the eastern side of the Andes (from 2100 m; Fjeldså & Krabbe 1990, Armonía 1995).

AMETHYST WOODSTAR *Calliphlox amethystina*

Two males were observed by SKH on 7 Oct at 800 m along Río Boopi at Las Mercedes. This is, to our knowledge, the first report of this species in Andean valleys and represents an increase in altitudinal range by 100 m (Bond & Meyer de Schauensee 1943, Remsen & Traylor 1983).

STRIPED WOODPECKER *Picoides lignarius*

Observations of this species on 25 and 28 Dec 1993 by SM and on 16 Sept 1995 by SKH in dry forest below Inquisivi represent the first reports of this species for depto. La Paz (Remsen & Traylor 1989, Armonía 1995).

GREEN-BARRED FLICKER *Colaptes melanochloros*

Daily observations of a few individuals between 2200 and 3000 m at Inquisivi by SM in 1993 and 1994 and by SKH and SH in 1995

represent the first reports for depto. La Paz (Remsen & Traylor 1989, Armonía 1995). Interestingly, none of the birds seen in 1995, even when two individuals (presumed pairs) were observed together, showed the red malar stripe typical of the male.

BOLIVIAN EARTHCREEPER *Upucerthia harterti*

Observations of a pair and a single individual on 13 June by MK and SH on the SW side of the Río Caine represent the first reports for depto. Potosí (Remsen & Traylor 1989, Armonía 1995). These birds and another pair seen on 24 June at 2500 m in the Río Jaya Mayu valley (17°52′S, 65°56′W) were found in habitat much modified by timber extraction, agriculture and grazing. The pair seen along Río Caine spent several hours foraging and vocalizing in a hedge formed by dead *Acacia* branches and a barren cliff, where the birds investigated crevices in a manner reminiscent of Rock Wrens *Salpinctes obsoletus*. Remsen *et al.* (1988) found this species to be partial to dry scrub and forest with a dense undergrowth of terrestrial bromeliads, a typical feature of severely overgrazed habitats (MK unpubl. data). These observations suggest that *U. harterti* tolerates human degradation of its habitat quite well and may not be "near-threatened" (as considered by Collar *et al.* 1992).

An individual of this species was also seen in degraded dry forest (dominated by *Prosopis laevigata*, *Caesalpinia* spp. and *Dodonaea viscosa*) with abundant terrestrial bromeliads (*Puya meziana*) at Huachillas (16°39′S, 68°01′W, 3000 m) in the La Paz valley on 8 Sept 1991 by J. Fjeldså (pers. comm.) and on 9 Sept 1991 by MK. These are the first reports of this species for depto. La Paz (Remsen & Traylor 1989, Armonía 1995).

Cranioleuca, unnamed species

A distinctive, rufous-capped form of *Cranioleuca* spinetail, which will be described as a new species by SM and J. Fjeldså, was a common species in dry forest below Inquisivi. It was first discovered and tape-recorded by SM on 27 Dec 1993, and specimens were collected a few weeks later. The species was mostly seen in pairs in the lower canopy and upper understorey but occasionally also in mixed-species flocks. It was also frequently encountered by SKH, MK and SH in 1995.

BERLEPSCH'S CANASTERO *Asthenes berlepschi*

The sighting of a pair at 2300 m in the Consata Valley (15°30′S, 68°38′W) on 30 May by MK and SH represents a new altitudinal record for this threatened species (ranked as "insufficiently known" by Collar *et al.* 1992), previously known from 2600–3700 m (Fjeldså & Krabbe 1990), and only recently rediscovered (Mayer 1995). The birds were found in a low, open "hedge" formed by *Puya* bromeliads along a field edge in an area of intense agricultural activity. The Consata Valley has been densely inhabited at least since Incan times, and natural habitats have been almost completely converted into cultivated areas. Nevertheless, *A. berlepschi* seems to be common within its restricted

range (the Consata Valley and its tributaries); three separate individuals were seen crossing the road on 3 June by MK while driving from Tacacoma to Quiabaya (15°38'S, 68°40'W) at 3200–3500 m in open, degraded *Polylepis* forest and in *Baccharis pentlandii* scrub, and the species was common around the town of Sorata (Mayer 1995). Apparently, *A. berlepschi* is as common and tolerant of habitat degradation within its restricted range as the closely related *A. dorbygni* (of which it may only be a race; Ridgely & Tudor 1994) in similar dry valleys further south in Bolivia.

Our observations increase the known range size of *A. berlepschi* to *c.* 200 km^2. We expect that the species will also be found in the not yet surveyed areas north of the Río Consata where the habitat is very similar, which would increase its range size to 450 km^2. Based on the combined information above, we do not consider *A. berlepschi* to be under any immediate threat and suggest it should be removed from the list of threatened species.

BUFF-BROWED FOLIAGE-GLEANER *Syndactyla rufosuperciliata*

Regularly seen by MK and SH in dry forest down to 1000 m in mixed-species flocks with *Poecilurus scutatus*, *Basileuterus bivittatus* and *Arremon flavirostris* at Río Azero. In the Andes, this species was previously known only from humid forest above 1300 m (Ridgely & Tudor 1994, Armonía 1995).

SPOT-BILLED GROUND-TYRANT *Muscisaxicola maculirostris*

Repeated observations by SKH and MK of an individual along the Río La Paz at 1300 m at Huara represent a downward range extension of 700 m for this species in Bolivia (Ridgely & Tudor 1994, Armonía 1995).

BROWN-CRESTED FLYCATCHER *Myiarchus tyrannulus*

An individual was seen and tape-recorded at 2300 m on 15 and 16 Sept by SKH at Inquisivi. This species was previously known only up to about 1700 m (Ridgely & Tudor 1994, Armonía 1995).

LEMON-BROWED FLYCATCHER *Conopias cinchoneti*

One individual of this distinctive flycatcher was observed foraging along Río Khatu below Inquisivi on 16 Sept by SKH. The bird was constantly on the move, perching only briefly in two small bushes about 1–1.5 m above ground on an open gravel bar. It frequently sallied out horizontally into the air about 15–25 m away from its perch. The bird did not call and disappeared into gallery forest after about 10 minutes. On 8 Oct, MK observed another individual along Río Coroico at Yolosillas for about 3 minutes in degraded riverine forest. Both individuals were identified by their two-toned colour pattern with olive backs and yellow underparts, a yellow superciliary extending far back onto the nape and the lack of wingbars and white edgings on the outer rectrices. The coloration of the bird at Yolosillas was rather dull, suggesting that it was a juvenile. These are the first reports of this species for Bolivia and would represent a huge southward range

extension of 600 km from Cuzco, Peru (Ridgely & Tudor 1994). However, until "tangible evidence" for the occurrence of this species in Bolivia is obtained (preferably by specimen), its presence in Bolivia should be regarded as hypothetical.

WHITE-NAPED XENOPSARIS *Xenopsaris albinucha*

An individual of this species, known from only a handful of localities in Bolivia (J. V. Remsen *in litt.*), was observed on 16 July by MK in a mixed-species flock in tall, disturbed gallery forest along the Río Grande at 500 m in Masicurí. It perched briefly almost directly above the observer about 5 m above ground before flying into the viny tangles of a treefall gap, where it could not be relocated.

WHITE-LINED TANAGER *Tachyphonus rufus*

A pair seen in degraded riverine forest at 1300 m at Huara on 28 Sept by MK represents the first report for depto. La Paz (Remsen & Traylor 1989, Armonía 1995) and fills part of a large distributional gap for this rather local species (Ridgely & Tudor 1989), previously known from localities about 750 km further E in eastern Santa Cruz (Armonía 1995) and *c.* 650 km further NW in Cuzco, Peru (Isler & Isler 1987).

FAWN-BREASTED TANAGER *Pipraeidea melanonota*

A pair seen in a mixed-species flock near the confluence of the Río Masicurí and Río Grande at 500 m on 11 July by MK represents an unusually low record of this species on the eastern Andean slope (where usually recorded above 1500 m, Ridgely & Tudor 1989; above 1200 m according to Armonía 1995). Also regularly seen at 1100–1400 m at Río Azero.

CHESTNUT-VENTED CONEBILL *Conirostrum speciosum*

At Miguillas this species was found at elevations of up to 1500 m by SKH, about 500 m above the usual altitudinal range of the species (Ridgely & Tudor 1989).

CINEREOUS CONEBILL *Conirostrum cinereum*

An individual was observed preening for about 2 minutes in degraded riverine forest at 1300 m along the Río La Paz at Huara on 28 Sept by MK. This observation represents a considerable downward range extension for the eastern Andean slope (previously known only above 2500 m; Ridgely & Tudor 1989, Armonía 1995).

EPAULET ORIOLE *Icterus cayanensis*

A pair was seen at 1500 m at San Juan del Potrero on 5 Sept by SKH, 500 m above the usual range for this species (Ridgely & Tudor 1989, Armonía 1995).

The following 23 species were found at 2050–2400 m on the SW side of the Caine valley (site 7), an area of relatively low elevation, which political arbitrariness has placed in depto. Potosí (most of which is well above 3000 m), and while they are new to the department (Remsen &

Traylor 1989, Armonía 1995), these records were to be expected based on known ranges in adjacent departments and represent only minor range extensions: Buff-necked Ibis *Theristicus caudatus* (4 on 12 June by MK and SH), Black-chested Buzzard-eagle *Geranoaetus melanoleucus* (1 on 13 June by MK and SH), Roadside Hawk *Buteo magnirostris* (1 on 11 June by SH), Collared Plover *Charadrius collaris* (2 on 13 June by MK and SH), Large-tailed Dove *Leptotila megalura* (several on 11–13 June by MK and SH), Blue-crowned Parakeet *Aratinga acuticaudata* (common), Smooth-billed Ani *Crotophaga ani* (several on 12 June by MK and SH), Glittering-bellied Emerald *Chlorostilbon aureoventris* (1 male on 12 June by MK), White-bellied Hummingbird *Amazilia chionogaster* (several on 11–13 June by MK and SH), Narrow-billed Woodcreeper *Lepidocolaptes angustirostris* (2 on 11 June by MK and SH), Rufous Hornero *Furnarius rufus* (common), Olive-crowned Crescentchest *Melanopareia maximiliani* (1 on 12 June by MK), Suiriri Flycatcher *Suiriri suiriri* (2 on 13 June by MK and SH), Southern Scrub Flycatcher *Sublegatus modestus* (1 on 13 June by MK), Greater Wagtail-tyrant *Stigmatura budytoides* (common), Creamy-bellied Thrush *Turdus amaurochalinus* (several on 12 June by MK and SH), Grey-crested Finch *Lophospingus griseocristatus* (common), Ringed Warbling-finch *Poospiza torquata* (pair on 13 June by MK and SH), Great Pampa Finch *Embernagra platensis* (singing male by MK and SH on 11 June), Black-backed Grosbeak *Pheucticus aureoventris* (several on 11–13 June by MK and SH), Sayaca Tanager *Thraupis sayaca* (regularly seen by MK and SH), Brown-capped Redstart *Myioborus brunniceps* (2 on 12 June by MK), Masked Gnatcatcher *Polioptila dumicola* (pair on 13 June by MK and SH).

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Appendix

The following list includes all species observed at 11 of the 12 survey sites described in the text (site 12, Río Pilcomayo, is not included): **1** Consata, **2** Yolosillas, **3** Las Mercedes, **4** Miguillas, **5** Huara, **6** Inquisivi, **7** Río Caine, **8** San Juan del Potrero, **9** Novillero, **10** Masicurí and **11** Río Azero. The habitat(s) in which each species was observed are abbreviated as follows: **D**=dry forest; **E**=evergreen forest (including gallery forest); **A**=predominantly agricultural areas; **R**=directly at rivers; **O**=flying over the survey area. No specimens were collected. Relative abundances were not estimated due to the relatively short time spent at each site.

Tinamus major 10E. *Crypturellus obsoletus* 3D. *Crypturellus undulatus* 2DE, 8D. *Crypturellus atrocapillus* 3D, 4D. *Crypturellus tataupa* 2DE, 3D, 4D, 8D, 10DE. *Nothoprocta pentlandii* 6DA. *Phalacrocorax brasilianus* 2O. *Tigrisoma fasciatum* 2R. *Ardea cocoi* 10R. *Ardea alba* 10R. *Egretta thula* 7R, 10R. *Nycticorax nycticorax* 9O. *Theristicus caudatus* 7A. *Coragyps atratus* 3O, 8O, 10O, 11O. *Cathartes aura* 1O, 2O, 3O, 4O, 5O, 6O, 7O, 8O, 9O, 10O, 11O. *Vultur gryphus* 5O, 6O, 7O, 8O, 11O. *Sarcoramphus papa* 11O. *Merganetta armata* 2R, 6R. *Chondrohierax uncinatus* 2O, 3D, 4O, 5D. *Elanoides forficatus* 3O. *Ictinia plumbea* 3D, 4O. *Accipiter bicolor* 9O. *Geranoaetus melanoleucus* 1D, 3O, 5O, 6O, 7O, 8O, 9O, 11O. *Harpyhaliaetus solitarius* 10O, 11O. *Buteo magnirostris* 1DE, 2O, 3D, 4D, 5DE, 6A, 7D, 8D, 9D, 10DE, 11DE. *Buteo albigula* 6O. *Buteo brachyurus* 3O, 11O. *Buteo albicaudatus* 8O. *Buteo polyosoma* 9O. *Buteo albonotataus* 1O. *Phalcoboenus megalopterus* 6O. *Polyborus plancus* 8D, 11E. *Falco sparverius* 1D, 3D, 5DE, 6DE, 7D. *Falco femoralis* 11O. *Falco rufigularis* 2E, 5D, 10E. *Falco peregrinus* 5O, 7O. *Ortalis guttata* 1DE, 2E, 3D, 10D. *Penelope montagnii* 9D. *Penelope jacquacu* 3D. *Pipile pipile* 10D. *Aramides cajanea* 2E, 3E, 10E. *Charadrius collaris* 7R. *Actitis macularia* 3R, 6R. *Columba maculosa* 7O. *Columba fasciata* 3D, 5D, 6D. *Columba plumbea* 1D, 3D. *Zenaida auriculata* 1D, 7DA. *Columbina talpacoti* 10A, 11E. *Columbina picui* 1D, 3A, 5DE, 6DA, 7DA, 10DEA. *Claravis mondetoura* 3D. *Leptotila verreauxi* 1DE, 2DEA, 3D, 4D, 5DE, 6DE, 8D, 10DEA, 11DE. *Leptotila megalura* 3D, 4D, 5DE, 6DE, 7DA, 8D, 9DE, 11D. *Ara militaris* 10O. *Ara rubrogenys* 7O, 9O. *Ara auricollis* 10E, 11DE. *Ara severa* 10O. *Aratinga acuticaudata* 7DA, 8D. *Aratinga mitrata* 1D, 2O, 3D, 4D, 5DE, 6D, 7D, 9DE, 11DE. *Pyrrhura molinae* 2DE, 3D, 4D, 5DE, 6DE, 10DE, 11D. *Myiopsitta monachus* 7DA. *Bolborhynchus aymara* 6D, 7D. *Brotogeris versicolurus* 1D,